327 IAC 8-13-12 Operational Testing

Authority:

Affected:

Sec. 12. (a) Sampling, testing and measurement for water quality and quantity and system collection of operational data shall be performed by the supplier of water as required by this rule when the system is in operation. Sampling and testing procedures shall be approved by the commissioner. The commissioner may reduce sampling and testing on a case by case basis if data shows that individual requirements of this section are unnecessary.

(b) Additional sampling and testing shall be performed by the supplier of water as required by the commissioner in writing. The commissioner may require the additional sampling and testing when necessary to verify water quantity and quality, treatment plant effectiveness, adequate distribution system operation, and to protect water consumers as well as the environment from adverse impacts.

(c) A public water system shall install meters at locations sufficient to record total production of water from all sources, including water purchased from or water sold to other public water systems.

(d) The supplier of water shall be responsible for ensuring that the public water system is operated to provide an adequate quantity of safe drinking water to consumers. This responsibility includes maintaining or contracting for an adequate number of trained staff to perform all duties necessary, performing maintenance and replacement of equipment when necessary to keep the facilities in good operating condition, and providing adequate laboratory testing equipment to control and monitor treatment processes and chemical addition programs.

(e) Laboratory equipment shall be provided for determining the effectiveness of stabilization treatment. Testing and measurement equipment shall be provided to adequately control the treatment processes at all plants.

(f) Requirements for operational testing equipment are as follows:

(1) Smooth-nosed sampling taps shall be provided for collecting representative samples of treated and untreated water.

(2) A public water system shall have test equipment for measuring the disinfectant used in accordance with 327 IAC 8-2-8.7(5).

(3) Testing equipment shall be available to plants with specific treatment processes which include the following:

(A) Fluoride adjustment requirements are as follows:

(i) Test equipment for measuring levels of fluoride ion shall be provided.

(ii) Equipment shall be provided for measuring the quantity of fluoride in the water.

(iii) Equipment utilizing the sodium, 2-(parasulfophenylazo)-1,8-

dihydroxy-3, 6-naphthalene disulfonate method (SPADNS) or electrode method is required.

(iv) When also feeding phosphates, the electrode method is required.

(v) The AlizarinVisual method will be approved only in special cases where the water can allocate the extra time needed for testing.

(B) Iron removal requirements are as follows:

(i) Test equipment for measuring iron levels shall be provided.

(ii) The equipment shall have the capacity to accurately measure the iron content to a minimum of one-tenth (0.1) milligram per liter.

(iii) The equipment shall have the capacity to accurately measure the manganese content to a minimum of five-hundredths (0.05) milligram per liter.

(C) Ion exchange softening, equipment for measuring hardness.

(D) Coagulation and filtration, jar test equipment for determining chemical dosages and equipment for measuring pH, hardness, alkalinity and nitrate.

(E) Lime softening, equipment for measuring pH, hardness and alkalinity.

(F) Reverse osmosis, equipment for measuring total dissolved solids, chlorides and monitoring sulfates.

(G) Polyphosphate addition, equipment for measuring both ortho-phosphates and total phosphates.

(H)Chlorine and disinfectant residual testing requirements are as follows:

(i) The equipment shall be capable of measuring residuals to the nearest one-tenth (0.1) milligram per liter in the range below five-tenths (0.5) milligram per liter.

(ii) The equipment shall be capable of measuring residuals to the nearest two-tenths (0.2) milligram per liter between the range of five-tenths (0.5) milligram per liter to two (2.0) milligrams per liter.

(I) Equipment for monitoring pH shall be provided using the electrometric method.